

CLAIMS

1. Process for the preparation of (S)-glyceraldehyde acetonide from 3,4-O-isopropylidene-L-threonic acid or a salt thereof in aqueous solution, and 5 hypochlorite in aqueous solution, characterized in that the aqueous hypochlorite solution has a pH > 7.5 and in that an acid solution is not simultaneously added during addition of at least 0.1 molar equivalents of the hypochlorite, based on the amount of 3,4-O-isopropylidene-L-threonic acid or a salt thereof.
- 10 2. Process according to claim 1, characterized in that an acid solution is not simultaneously added during addition of at least 0.5 molar equivalents of hypochlorite based on the amount of 3,4-O-isopropylidene-L-threonic acid or a salt thereof.
- 15 3. Process according to claim 2, characterized in that an acid solution is not simultaneously added during addition of between 1 and 3 molar equivalents of hypochlorite based on the amount of 3,4-O-isopropylidene-L-threonic acid or a salt thereof.
4. Process according to any of claims 1-3; characterized in that the aqueous hypochlorite solution has a pH > 9.0.
- 20 5. Process according to any of claims 1-4, characterized in that the aqueous solution of 3,4-O-isopropylidene-L-threonic acid or a salt thereof is a buffer system with a pH between 4 and 7.
6. Process according to claim 5, characterized in that the aqueous solution of 3,4-O-isopropylidene-L-threonic acid or a salt thereof is a buffer system with a 25 pH between 5 and 6.
7. Process according to claim 5 or 6, characterized in that the buffer system is formed by an acetic acid/acetate-buffer.
8. Process according to any of claims 1-7, characterized in that 3,4-O-isopropylidene-L-threonic acid or a salt thereof is prepared from 5,6-O- 30 isopropylidene-L-ascorbic acid or a salt thereof in the presence of H₂O₂ and a base, wherein optionally excess H₂O₂ is removed.
9. Process according to claim 8, characterized in that the excess H₂O₂ is removed by catalase.

10. Process according to claim 8 or claim 9, characterized in that 3,4-O-isopropylidene-L-threonic acid or a salt thereof is prepared by reaction of L-ascorbic acid or a salt thereof with an acetonide forming agent.
11. Process according to claim 10, characterized in that 3,4-O-isopropylidene-L-threonic acid or a salt thereof is prepared in the presence of an acid catalyst.
- 5 12. Process according to any of claims 1-11, characterized in that (S)-glyceraldehyde acetonide is extracted from the aqueous solution.